

-35-

CLAIMS

1. An image forming apparatus, comprising:

a fixing unit that fixes a toner image transferred  
5 to paper, said fixing unit further having a plurality of  
heaters;

a main power supply that provides a portion of the  
heaters with voltage; and

a secondary power supply that provides another  
10 portion of the heaters connected to the portion of the heaters  
in parallel with power charged by said main power supply;

wherein

said secondary power supply is disposed below and  
in the neighborhood of said fixing unit.

15

2. An image forming apparatus, comprising:

a fixing unit that fixes a toner image transferred  
to paper, said fixing unit further having a plurality of  
heaters;

20 a main power supply that provides a portion of the  
heaters with voltage; and

a secondary power supply that provides another  
portion of the heaters connected to the portion of the heaters  
in parallel with power charged by said main power supply;

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wherein

-36-

said secondary power supply is disposed between a side face of a chassis of the image forming apparatus and said fixing unit, or at an exterior of the chassis of the image forming apparatus on the side face of the chassis.

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3. An image forming apparatus, comprising:

a fixing unit that fixes a toner image transferred to paper, said fixing unit further having a plurality of heaters;

10 a main power supply that provides a portion of the heaters with voltage;

a secondary power supply that provides another portion of the heaters connected to the portion of the heaters in parallel with power charged by said main power supply; and

15 a paper feed unit to which a plurality of paper feed trays are loadable, the paper being stored in the paper feed trays;

wherein

said secondary power supply is disposed as a  
20 portion of said paper feed unit.

4. The image forming apparatus as claimed in any one of the claims 1 through 3, further comprising:

an insulation member disposed between said fixing  
25 unit and said secondary power supply.

-37-

5. The image forming apparatus as claimed in any one of the claims 1 through 3, further comprising:

an insulation member disposed so as to cover said  
5 secondary power supply.

6. The image forming apparatus as claimed in any one of the claims 1 through 3,

wherein

10 said secondary power supply further comprises a secondary power supply circuit and a capacitor, and the capacitor is covered by said insulation member.

7. The image forming apparatus as claimed in any  
15 one of the claims 1 through 3, further comprising:

a first connection terminal provided on the chassis of the image forming apparatus; and

a second connection terminal that is electrically connected to said second power supply, said second connection  
20 terminal being connectable to said first connection terminal.

8. The image forming apparatus as claimed in claim

7,

wherein

25 said first connection terminal and said second

-38-

connection terminal are detachable.

9. The image forming apparatus as claimed in any one of the claims 1 through 3,

5 wherein

said secondary power supply further comprises:

a capacitor; and

a discharging unit that discharges a charge stored in said capacitor when said secondary power supply is being  
10 maintained or replaced.

10. The image forming apparatus as claimed in any one of the claims 1 through 3,

wherein

15 said secondary power supply further comprises:

a capacitor of a high capacity; and

a switch unit that switches on and off a ventilation unit for generating air flow in and around said secondary power supply.

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11. The image forming apparatus as claimed in any one of the claims 1 through 3,

wherein

a wire of 14 or more in AWG size is used for  
25 connecting said secondary power supply and the heaters.

-39-

12. The image forming apparatus as claimed in any one of the claims 1 through 3,

wherein

5           said secondary power supply further comprises a cooling unit that cools an interior of said secondary power supply.